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UMC and IME to Partner on Advanced Noise Modeling for Nanometer Technologies

Joint Development Program to accelerate creation of accurate high frequency noise models

Hsinchu, Taiwan, and Singapore, October 2, 2006 — UMC, a leading global semiconductor foundry (NYSE: UMC, TSE: 2303), and Singapore's Institute of Microelectronics (IME), have sealed a partnership to jointly develop Radio Frequency (RF) modeling solutions for 90nm technologies. The cooperation will result in the development of new methodologies that are applicable for advanced technologies at 90nm and beyond.

The newly formed joint development program encompasses two areas of research: high frequency noise characterization and modeling for RF applications at nanometer process technologies, as well as circuit modeling verification and validation flow development based on IME's RF circuits and tests. Progress in these areas will help facilitate the development of a Mixed Mode (MM)/RF circuit and a modeling validation methodology for advanced system-on-chip (SoC) applications. These resources will help accelerate design-in and reduce risk for customers developing SoCs that incorporate RF applications for wireless segments such as 3G, WLAN and Bluetooth.



“Advanced noise model development along with proven sample circuit verification flows are crucial for RF SoC development at 90nm and below,” said S C Chien, vice president of UMC’s Central Research and Development division. “IME’s extensive knowledge and design experience with MM/RF circuits will allow us to create high quality, accurate modeling solutions for issues such as thermal noise, and to help ensure accurate design-in for those customers wishing to develop advanced RF SoCs using UMC’s most sophisticated technologies.”

Professor Dim-Lee Kwong, Executive Director of IME, said, “Partnering with UMC, a world leader in semiconductor technology development, will allow our respective organizations to leverage one another’s engineering resources in order to speed up the development of advanced and accurate high frequency noise models. We look forward to realizing the fruits of our efforts with UMC, which will ultimately benefit RF designers at deep sub-micron technologies, in the coming months.”

The joint efforts will take place at UMC’s 300mm Fab 12i in Singapore. Fab 12i was Singapore’s first 300mm fab, and features advanced automation systems and equipment such as state-of-the-art single wafer processing. The partnership will give IME access to Fab 12i’s facilities and resources, and is another testament to UMC’s confidence in expanding its activities in Singapore.

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About UMC

UMC (NYSE: UMC, TSE: 2303) is a leading global semiconductor foundry that manufactures advanced system-on-chip (SoC) designs for applications spanning every major sector of the IC industry. UMC’s SoC Solution Foundry strategy is based on the strength of the company’s advanced technologies, which include production proven 90nm, 65nm, mixed signal/RFCMOS, and a wide range of specialty technologies. Production is supported through 10 wafer manufacturing facilities that include two advanced 300mm fabs; Fab 12A in Taiwan and Singapore-based Fab 12i are both in volume production for a variety of customer products. The company employs approximately 12,000 people worldwide and has offices in Taiwan, Japan, Singapore, Europe, and the United States. UMC can be found on the web at <http://www.umc.com>.



About IME

The Institute of Microelectronics (IME) is a research institute of A*STAR. Positioned to bridge the R&D between academia and industry, IME's mission is to increase value-add to the electronics industry in Singapore by engaging in relevant R&D in strategic fields of microelectronics; supporting and partnering the electronics industry; and developing skilled R&D personnel. Its key research areas are in integrated circuits and systems; semiconductor process technologies and microsystems, modules and components.

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